



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: January 28, 2005

Comment Deadline: February 28, 2005

Corps Action ID #: 200520314

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) has received an application for work within jurisdictional waters of the United States. Specific plans and location information are described below and overall plans showing the location of the proposed construction and impact sites are attached. This Public Notice and all attached plans are also available on the Wilmington District Web Site at www.saw.usace.army.mil/wetlands.

Applicant: North Carolina Department Of Transportation, Division Of Highways
1548 Mail Service Center
Raleigh, NC 27699-1548

Authority

The Corps will evaluate this application and a decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404(b) of the Clean Water Act (33 U.S.C. 1344).

Project

The project involves construction of improvements to NC 67 (T.I.P. No. R-3415) by widening and constructing turn lanes. NC 67 will vary from two lanes to three lanes on existing location, resulting in 24 foot to 36 foot travel ways including 2 foot paved shoulders. The project length is 6.2 miles.

Location

NC 67 crossing Lineberry Creek and its tributaries, Williams Creek and its tributaries, and unnamed tributaries of North Deep Creek between US 601 and SR 1355 (Messick Road), west of Booneville, in Yadkin County, North Carolina, 36.143° N Latitude, 80.462° W Longitude.

Existing Site Conditions

NC 67 is a two lane rural highway with grass shoulders in the piedmont of North Carolina. The existing corridor parallels mostly open pasture and cultivated fields with an occasional single family residence. The road mostly follows a ridge-line and has perpendicular crossings of headwater bed and bank perennial stream channels with little or no adjacent riparian areas. The

proposed project will not impact any wetlands. NC Division of Water Quality classifies all the proposed impacted streams associated with the project as Class C (waters protected for secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, agriculture and other uses).

Applicant's Stated Purpose

The purpose of the work is to improve traffic operations, level of service, and safety, for this section of the NC 67.

Project Description

The following description of the work is taken from data provided by the applicant. Plans submitted with the application show the placement of fill material impacting approximately 1198 linear feet of stream channel of the jurisdictional waters of the Yadkin Pee-Dee River basin (Hydrologic Categorical Unit 03040101). These impacts are necessary for the construction of proposed improvements to NC 67 (T.I.P. No. 3415). No wetlands will be impacted by this project. Construction of the proposed project will occur along the existing alignment and will involve the extension of existing culverts at impact sites 1 to 5 and 7 to 10. Relocations of streams channels to grassed lined lateral base ditches with cross vains would occur at impact sites 3 and 6.

NCDOT is proposing to use the North Carolina Ecosystem Enhancement Program (EEP) to provide the necessary compensatory mitigation for the unavoidable permanent stream channel impacts associated with this project.

Other Required Authorizations

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice in the NCDWQ Central Office in Raleigh serves as application to the NCDWQ for certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, Transportation Permitting Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 1650 Mail Service Center, Raleigh, North Carolina 27699-1650 Attention: Mr. John Hennessy by February 21, 2005.

Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion

therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

Endangered Species

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps has determined pursuant to the Endangered Species Act of 1973, that the proposed project will have no effect on federally listed endangered or threatened species or their formally designated critical habitat. As of January 29, 2003, the United States Fish and Wildlife Service (USFWS) lists no federally protected species for Yadkin County.

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

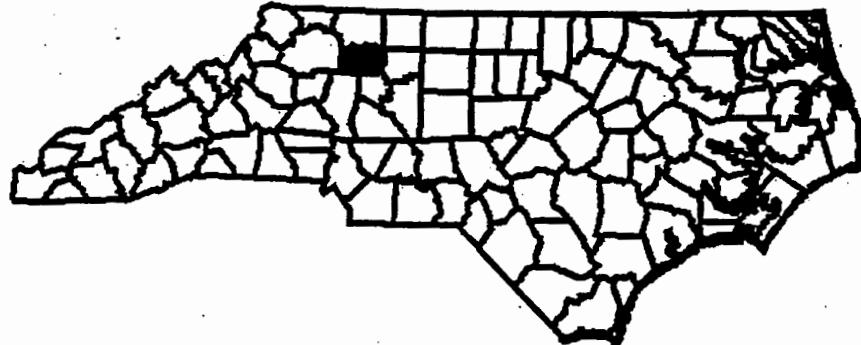
Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be

granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, February 28, 2005. Comments should be submitted to:

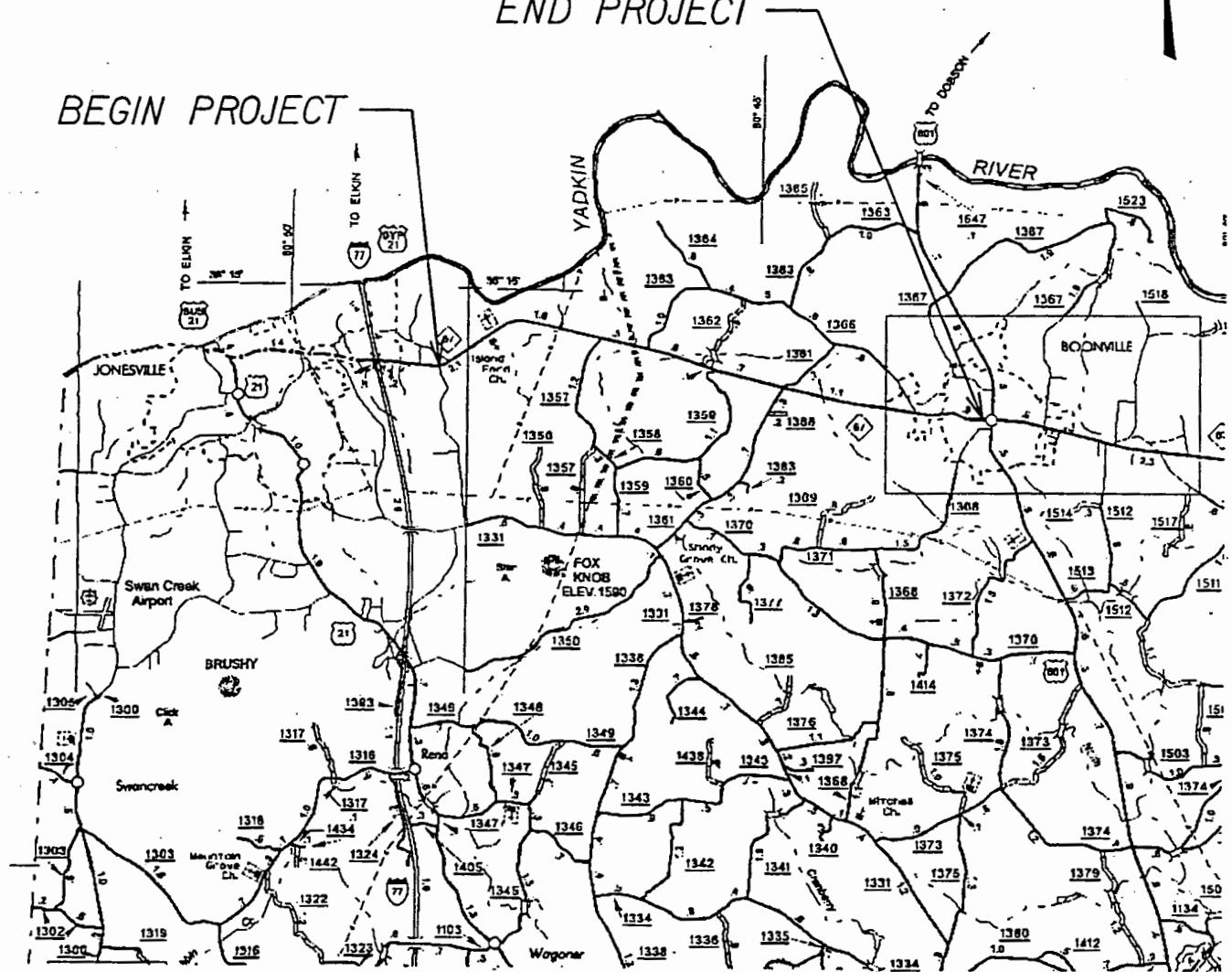
John Thomas
Wilmington District, Corps of Engineers
Raleigh Regulatory Field Office
6508 Falls of Neuse Road, Suite 120
Raleigh, North Carolina 27615-6814
Telephone (919) 876-8441

YADKIN COUNTY NORTH CAROLINA



END PROJECT

BEGIN PROJECT



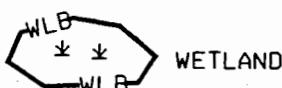
VICINITY
MAP

DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY

PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE

LEGEND

—WLB— WETLAND BOUNDARY



WETLAND



DENOTES FILL IN WETLAND



DENOTES FILL IN SURFACE WATER



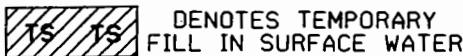
DENOTES FILL IN SURFACE WATER (POND)



DENOTES TEMPORARY FILL IN WETLAND



DENOTES EXCAVATION IN WETLAND



DENOTES TEMPORARY FILL IN SURFACE WATER



DENOTES MECHANIZED CLEARING

— — — FLOW DIRECTION

— TB — TOP OF BANK

— WE — EDGE OF WATER

— C — PROP. LIMIT OF CUT

— F — PROP. LIMIT OF FILL

— ▲ — PROP. RIGHT OF WAY

— NG — NATURAL GROUND

— PL — PROPERTY LINE

— TDE — TEMP. DRAINAGE EASEMENT

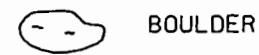
— PDE — PERMANENT DRAINAGE EASEMENT

— EAB — EXIST. ENDANGERED ANIMAL BOUNDARY

— EPB — EXIST. ENDANGERED PLANT BOUNDARY

— ▽ — WATER SURFACE

X X X LIVE STAKES

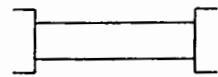


BOULDER

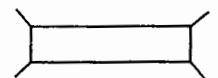
— — — COIR FIBER ROLLS



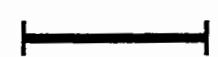
ADJACENT PROPERTY OWNER OR PARCEL NUMBER



PROPOSED BRIDGE



PROPOSED BOX CULVERT

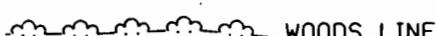


PROPOSED PIPE CULVERT

(DASHED LINES DENOTE EXISTING STRUCTURES)



SINGLE TREE



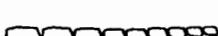
WOODS LINE



DRAINAGE INLET



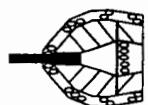
ROOTWAD



VANE



RIP RAP



RIP RAP ENERGY DISSIPATOR BASIN

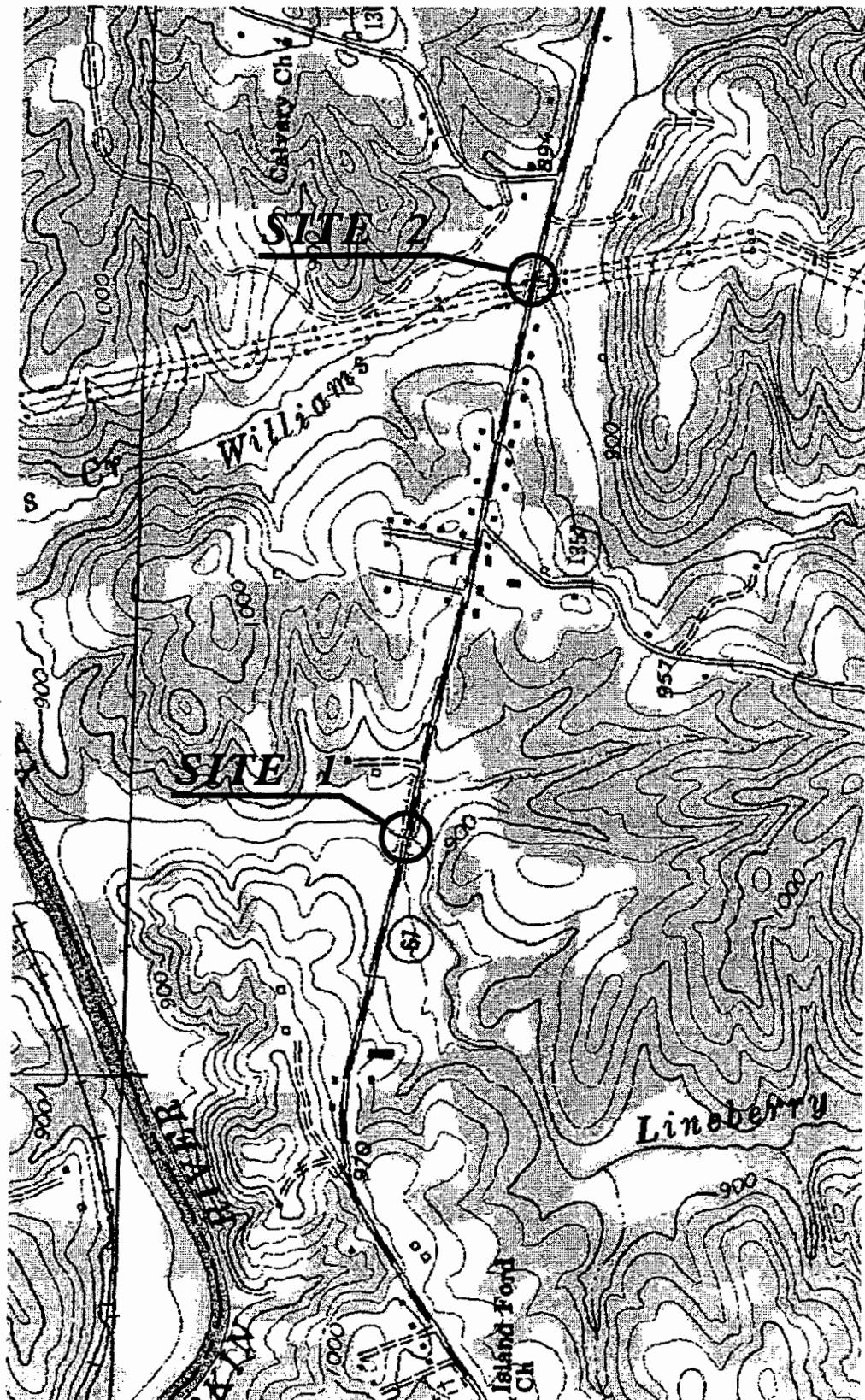


BUFFER ZONE

LEGEND

**DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY**

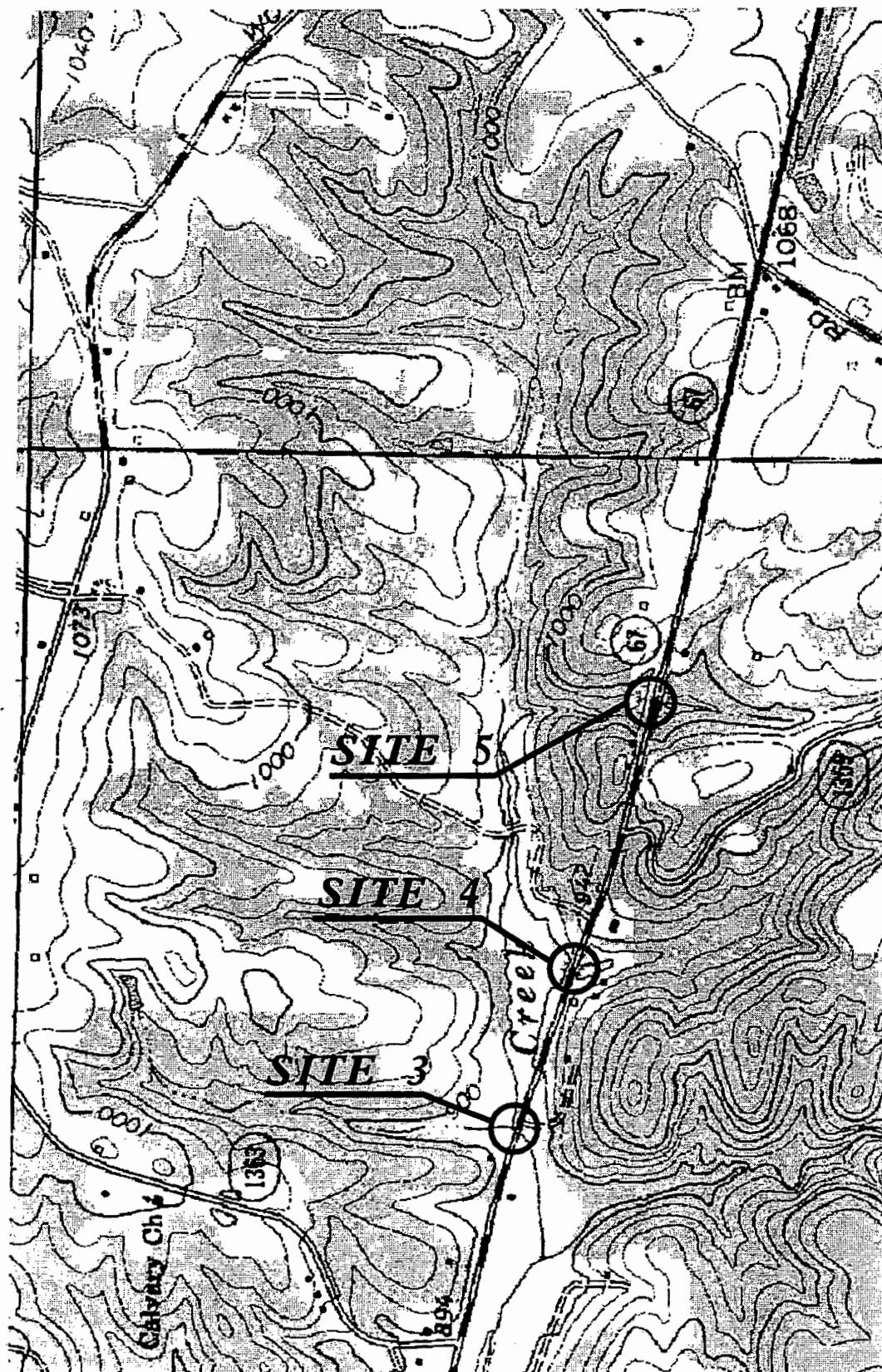
**PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE**



SITE MAPS (SITES 1 & 2)

DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY

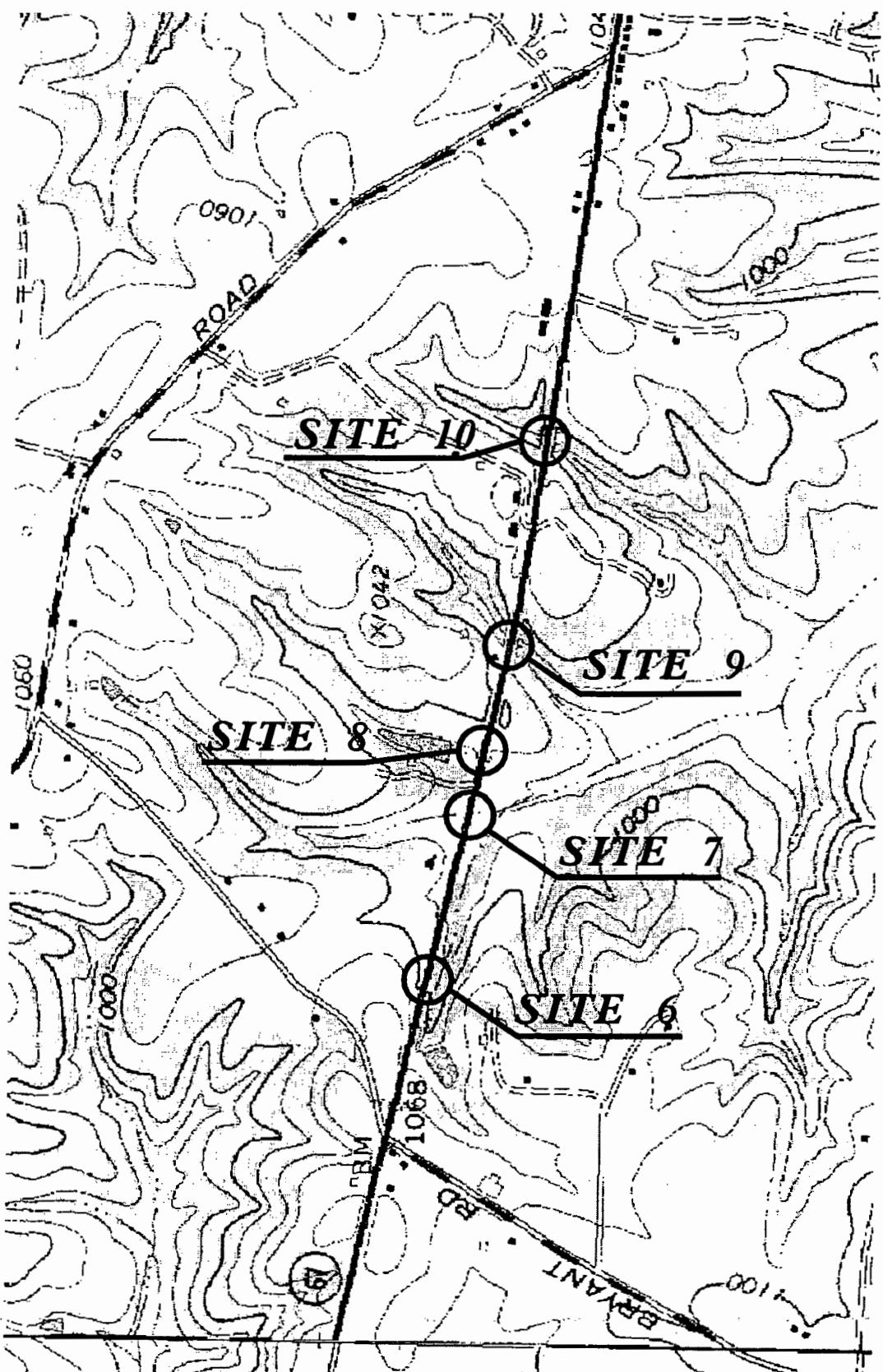
PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE



SITE MAPS (SITES 3 - 5)

DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY

PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE



SITE MAPS (SITES 6 - 10)

DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY

PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/T0)	Structure (Size/Type)	WETLAND IMPACTS				SURFACE WATER IMPACTS			
			Fill In Wetlands (Ac)	Temp. Fill In Wetlands (Ac)	Excavation In Wetlands (Ac)	Mechanized Clearing Method III (Ac)	Fill In SW (Natural) (Ac)	Temp Fill In SW (Ac)	Channel Impact (Ft)	Natural Stream Design (Ft)
1	-L- 79+43.01	EXTEND 38'x15' RCBC					0.014		32'	
	-L- 81+00 RT	LATERAL DITCH CONST.					0.019		325'	
2	-L- 119+06.31	EXTEND 38'x12' RCBC					0.010		28'	
3	-L- 141+90.62	EXTEND 28'x8' RCBC					0.009		32'	
	-L- 141+50 LT	LATERAL DITCH CONST.					0.004		74'	
	-L- 143+00 LT	LATERAL DITCH CONST.					0.018		208'	
4	-L- 153+48	RETAIN, COLLAR & EXTEND EX. 4'x5' RCBC w/ 60° RCP					0.008		60'	
5	-L- 171+37.35	EXTEND 6'x5' RCBC					0.016		38'	
6	-L- 209+25 RT	LATERAL DITCH CONST.					0.010		126'	
7	-L- 209+25 RT	RETAIN & EXTEND EX. 4'x5' RCBC w/ 60° RCP					0.006		48'	
8	-L- 222+41.60	RETAIN & EXTEND EX. 4'x4' RCBC w/ 54° RCP					0.006		49'	
										1020 1024
		PAGE TOTAL:					0.120			

**DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY**

**PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE**

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure (Size/Type)	WETLAND IMPACTS			SURFACE WATER IMPACTS				
			Fill In Wetlands (Ac)	Temp. Fill In Wetlands (Ac)	Excavation In Wetlands (Ac)	Mechanized Clearing (Method III) (Ac)	Fill In SW (Natural) (Ac)	Temp Exist Channel Impact (Ft)	Temp Fill In SW (Ac)	Existing Channel Impact (Ft)
9	-L- 233+96.76	RETAIN & EXTEND EX. 4'x4' RCBC w/ 54' RCP					0.019			
10	-L- 233+96.76	RETAIN & EXTEND EX. 3'x4' RCBC w/ 48' RCP					0.016			

PAGE TOTAL: 176
 PREVIOUS PAGE TOTAL: 1020
 PROJECT TOTAL: 1198

**DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY**

**PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK) ROAD TO JUST WEST OF
BOONVILLE**

PROPERTY OWNER

NAME AND ADDRESS

PARCEL NO.	OWNER'S NAME	ADDRESS
38	LINDBURG SWAIM & WIFE ANN SWAIM DB 140 PG 244	109 PARK CIRLE DRIVE JONESVILLE, NC 28642
41	JAMIE PHILLIPS & WIFE STEPHANIE PHILLIPS DB 455 PG 238	2439 NC HWY 67 JONESVILLE, NC 28642
42	DENNIS HUTTA & WIFE JOAN HUTTA DB 372 PG 352	2452 NC HWY 67 JONESVILLE, NC 28642
43	MICKEY P. HOLCOMB DB 415 PG 469	2517 NC HWY 67 JONESVILLE, NC 28642
68	J.A. WILLIAMS F FARMS, INC. DB 114 PG 508 DB 316 PG 144	3744 WOODRUFF ROAD JONESVILLE, NC 28642
69	TONY MUNCUS & WIFE ALYCE MUNCUS DB 438 PG 293	905 DINKINS ROAD LEWISVILLE, NC 27023
70	MARIE VESTAL DB 248 PG 57	3904 VESTAL ROAD JONESVILLE, NC 28642
77	JOHN WRENN & WIFE RHONDA WRENN DB 287 PG 308	2925 NC HWY 67 JONESVILLE, NC 28642
78	WALTER SMITH & WIFE NELLIE SMITH DB 287 PG 308	2944 NC HWY 67 JONESVILLE, NC 28642
79	FAITH TABERNACLE CHURCH (C/O WILLIAM A. JONES DB 374 PG 340	3925 GOLF COURSE ROAD BOONVILLE, NC 27011
81	JOHNNY SHEW & WIFE KARON SHEW DB 304 PG 177	3016 NC HWY 67 JONESVILLE, NC 28642

**DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY**

**PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK ROAD) TO JUST WEST OF
BOONVILLE**

PROPERTY OWNER

NAME AND ADDRESS

PARCEL NO.	OWNER'S NAME	ADDRESS
82	KENNETH VANHOY DB 287 PG 310 DB 117 PG 184 DB 88 PG 311	3028 NC HWY 67 JONESVILLE, NC 28642
83	KENNETH WHITLOCK & WIFE JANIE WHITLOCK DB 412 PG 379	7687 GRAPEVINE ROAD LEWISVILLE, NC 27023
86	THOMAS M. POPLIN DB 315 PG 473	2000 THORTON PLACE JONESVILLE, NC 28642
87	WALTER BROWN & WIFE JOAN BROWN DB 236 PG 137	1216 HENRY STREET YADKINVILLE, NC 27055
88	DALE & LYNN ROSE & FOY DEAN DAVIS. DB 495 PG 885	WOODRUFF RD BOONVILLE, NC 27011
90	JUANITA BRYANT, ETAL. WB 8 PG 304 WB 70E PG 18	4021 BRYANT ROAD BOONVILLE, NC 27011
91	JAMES KNIGHT & AMY KNIGHT DB 512 PG 167	3541 NC HWY 67 BOONVILLE, NC 27011
92	ROY W. REECE DB 48 PG 20	P.O. BOX 127 BOONVILLE, NC 27011
93	LARRY WHITT, JAMES KNIGHT, & AMY KNIGHT DB 295 PG 378	3541 NC HWY 67 BOONVILLE, NC 27011
95	NANCY C. WOOTEN, BILLY COLLINS, & THOMAS COLLINS, JR. DB 75 PG 62	718 MAPLEWOOD LN. STATESVILLE, NC 28625
97	VAUGHAN BASSETT FURNITURE CO. DB 415 PG 820	403 E. MAIN STREET ELKIN, NC 28621
98	JOHN COLLINS & WIFE RUTH COLLINS DB 62 PG 334	3836 NC HWY 67 BOONVILLE, NC 27011

**DIVISION OF HIGHWAYS
N.C. DEPT. OF TRANSPORTATION
YADKIN COUNTY**

**PROJECT: R-3415
IMPROVEMENT OF NC 67 FROM SR 1355
(MESSICK ROAD) TO JUST WEST OF
BOONVILLE**

PROJECT: 6.771008

R-3415

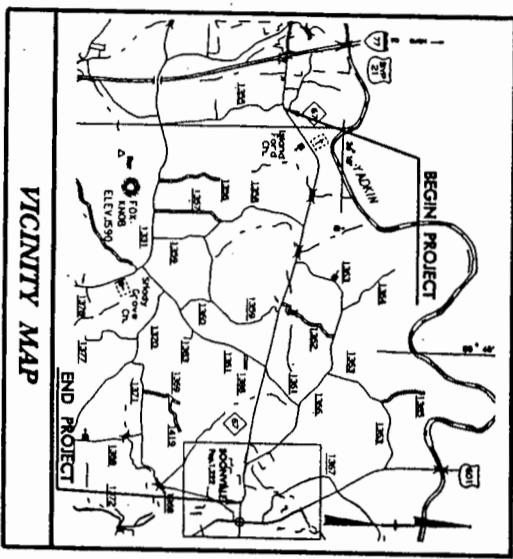
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

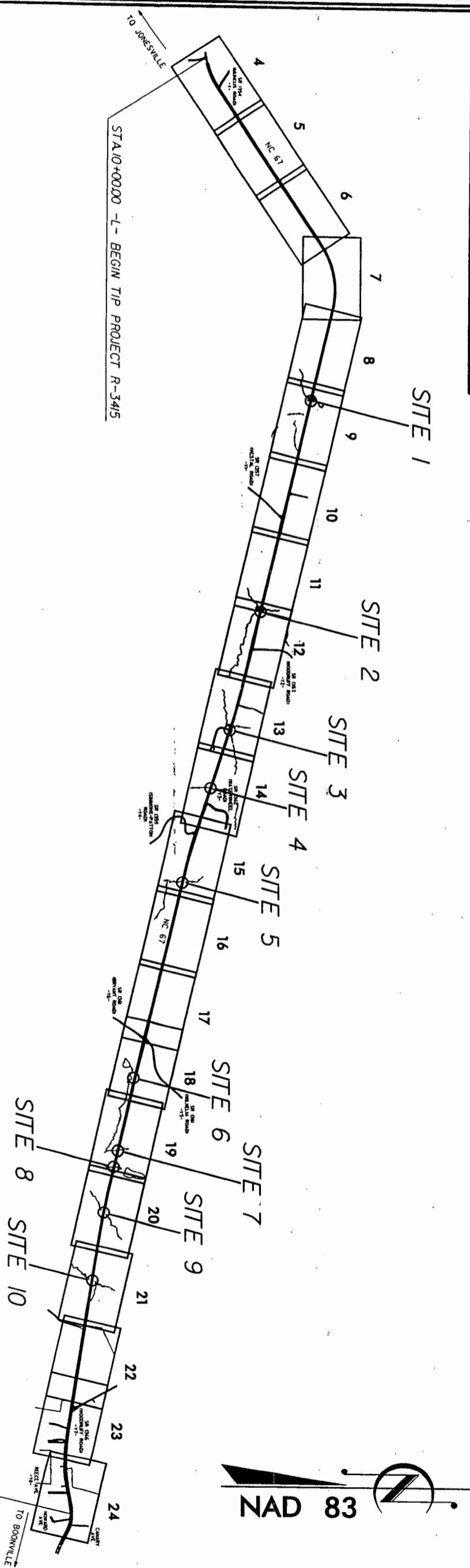
LOCATION: NC 67 FROM SR 1355 (MESSICK ROAD)

TYPE OF WORK: GRADING, PAVING, WIDENING, AND DRAINAGE

YADKIN

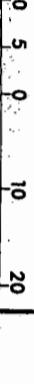


80 JOURNAL OF POLYMER SCIENCE

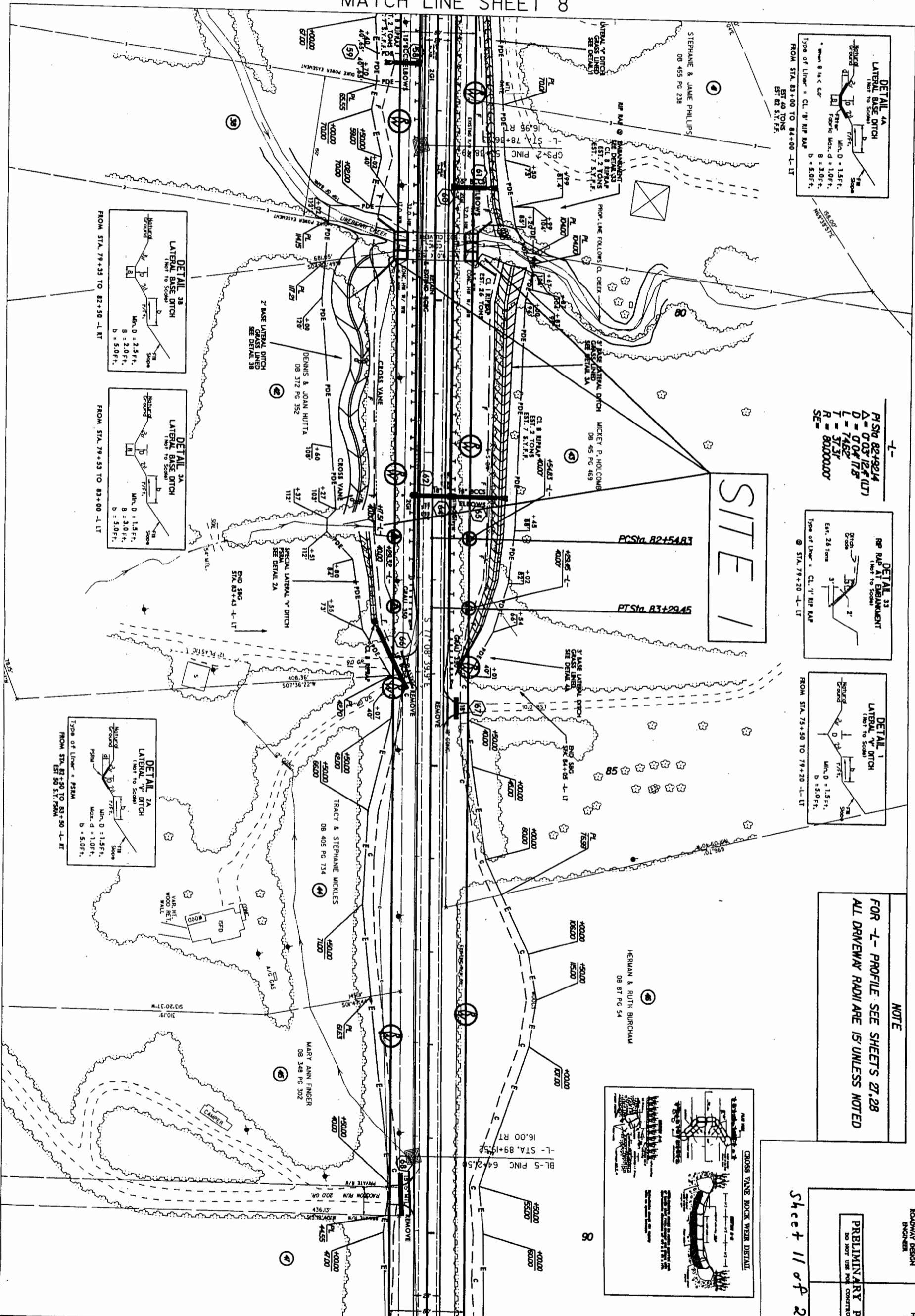


METHOD III CLEARING

PERMIT DRAWINGS 8/03/04

GRAPHIC SCALES		DESIGN DATA	
 PLANS		ADT 2000 = 7600 ADT 2025 = 13800 DHV = 10 % D = 60 % T = 5 % * AV = 50 MPH	
 PROFILE (HORIZONTAL)		• TTST 2 % DUAL 3 %	
 PROFILE (VERTICAL)			
PROJECT LENGTH			
LENGTH ROADWAY TIP PROJECT R-3415 = 5.303 MILES TOTAL LENGTH TIP PROJECT R-3415 = 5.303 MILES			
DIVISION OF HIGHWAYS			
<i>Prepared in the office of:</i> 801 Statesville Rd., North Wilkesboro, NC 28659 <u>2002 STANDARD SPECIFICATIONS</u>		DIVISION OPERATIONS ENGINEER W.O. ATKINS, PE	
<u>RIGHT OF WAY DATE:</u> AUGUST 21, 2003		DIVISION DESIGN ENGINEER JOSEPH L. LAWS, PE	
<u>LETTING DATE:</u> MARCH 15, 2005		<i>SIGNATURE:</i> _____ P.E. <i>SIGNATURE:</i> _____ P.E. <i>SIGNATURE:</i> _____ P.E.	
		<i>SIGNATURE:</i> _____ DATE _____ <i>SIGNATURE:</i> _____ DATE _____ <i>SIGNATURE:</i> _____ DATE _____	

MATCH LINE SHEET 8



NOTE

FOR -L- PROFILE SEE SHEETS 27.28
ALL DRIVEWAY RADII ARE 15' UNLESS NOTED

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REF ID: A10000000000000000000000000000000

DETAIL 33
RIP RAP AT
EVENEMENT
(Not to Scale)

Plot Grade

3' 2'

Est. 26 Tons

3'

DETAIL 1
LATERAL 'Y' DITCH
(Not to Scale)

Soil: **Topsoil**

Bottom: **Clay**

Dimensions:

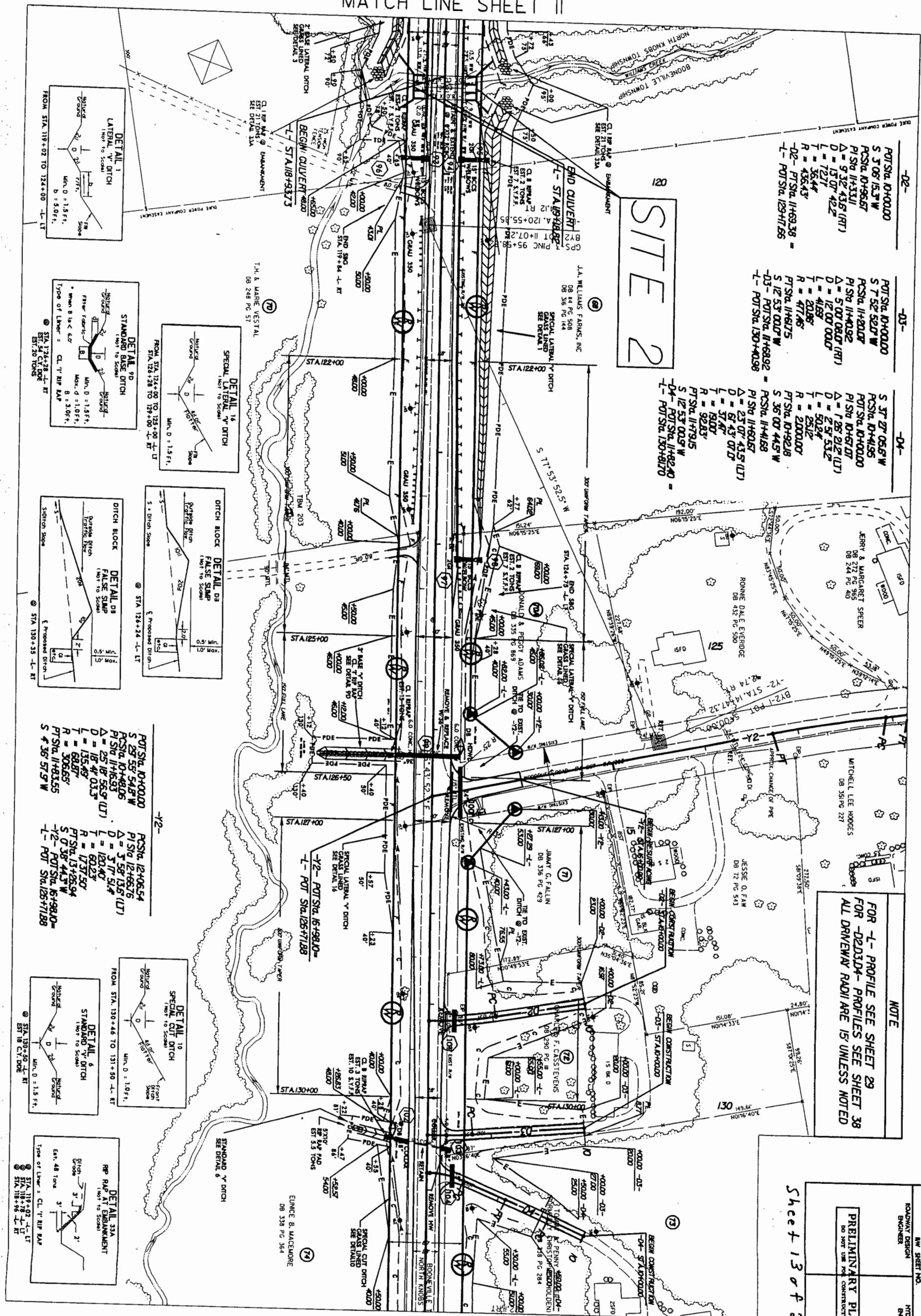
- MIN. D = 1.5 FT.
- b = 5.0 FT.
- D = 2.5 FT.
- b = 3.0 FT.

NOTE
FOR -L- PROFILE SEE SHEETS 27.28
ALL DRIVEWAY RADII ARE 15' UNLESS NOTED

		ENGINEER
SHEET 11 OF 28	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	ENGINEER

MATCH LINE SHEET II

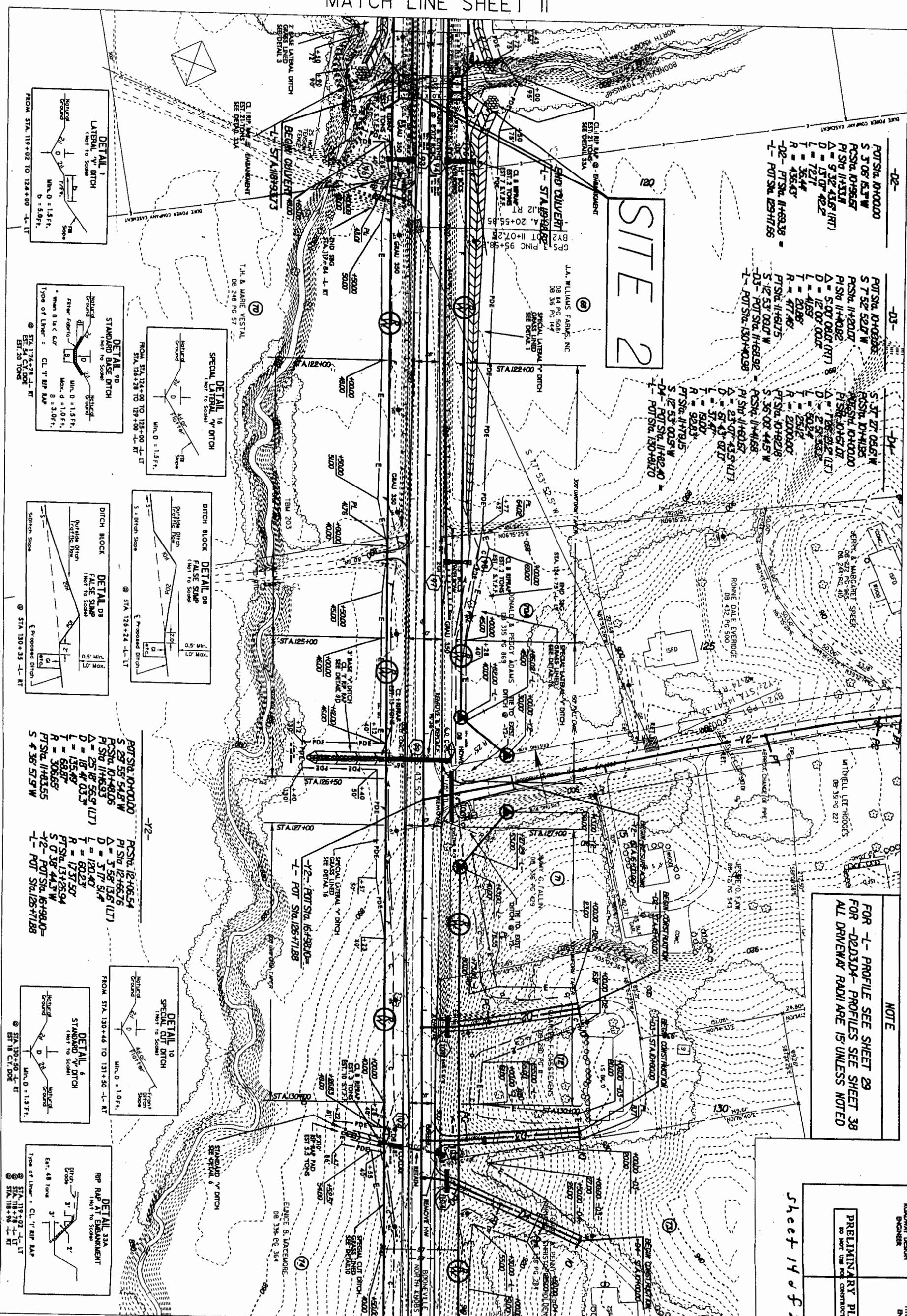
4/28/04 MOVE TCE TO STA.10+50 -D4- ON PARCEL 73



MATCH LINE SHEET 13

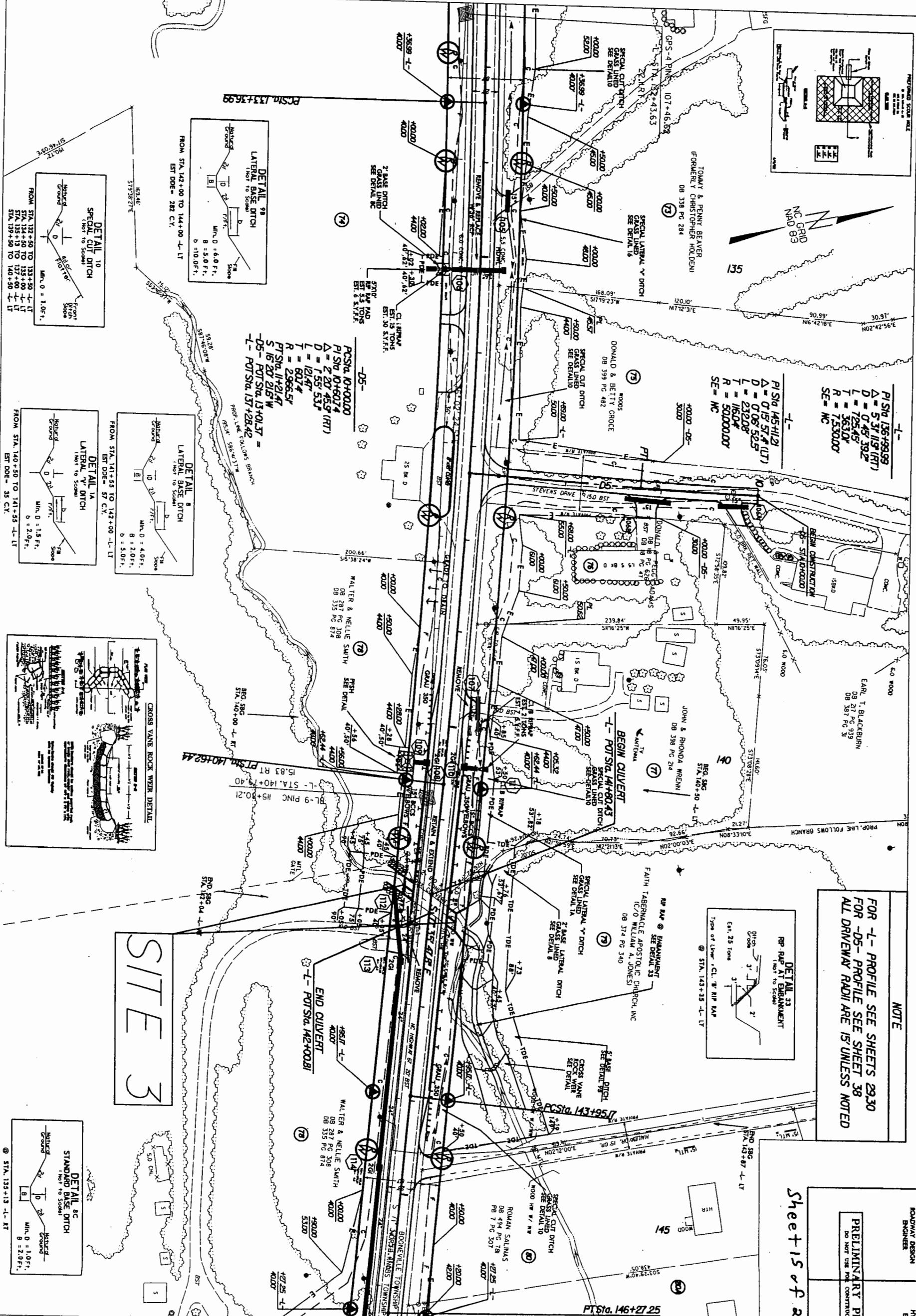
MATCH LINE SHEET II

09-DEC-2004 J5:14
C:\rdy\r-3415\r3415ps12_permit_site*2.dgn
checkbox AT



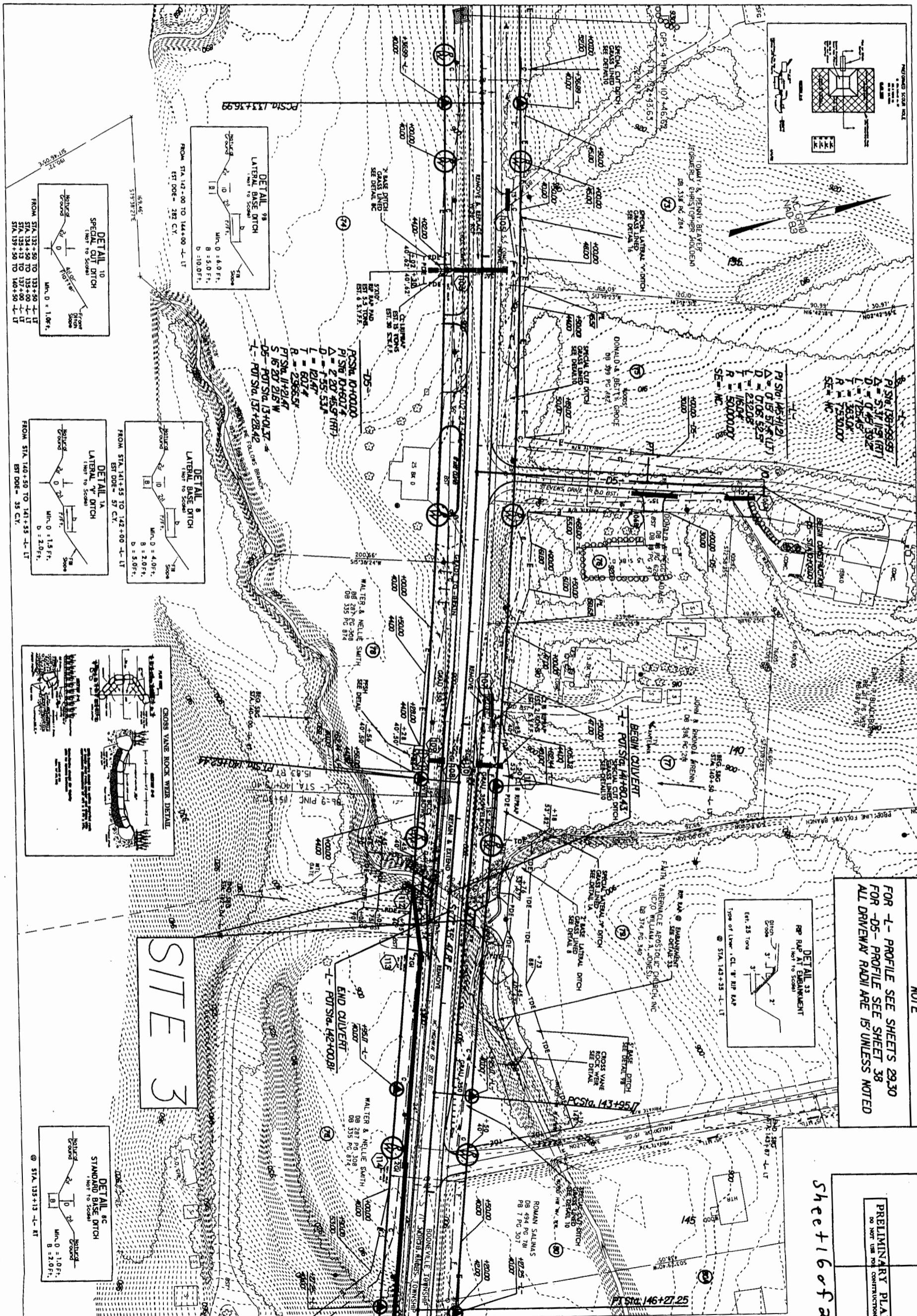
MATCH LINE SHEET 13

MATCH LINE SHEET 12



MATCH LINE SHEET 14

MATCH LINE SHEET 12



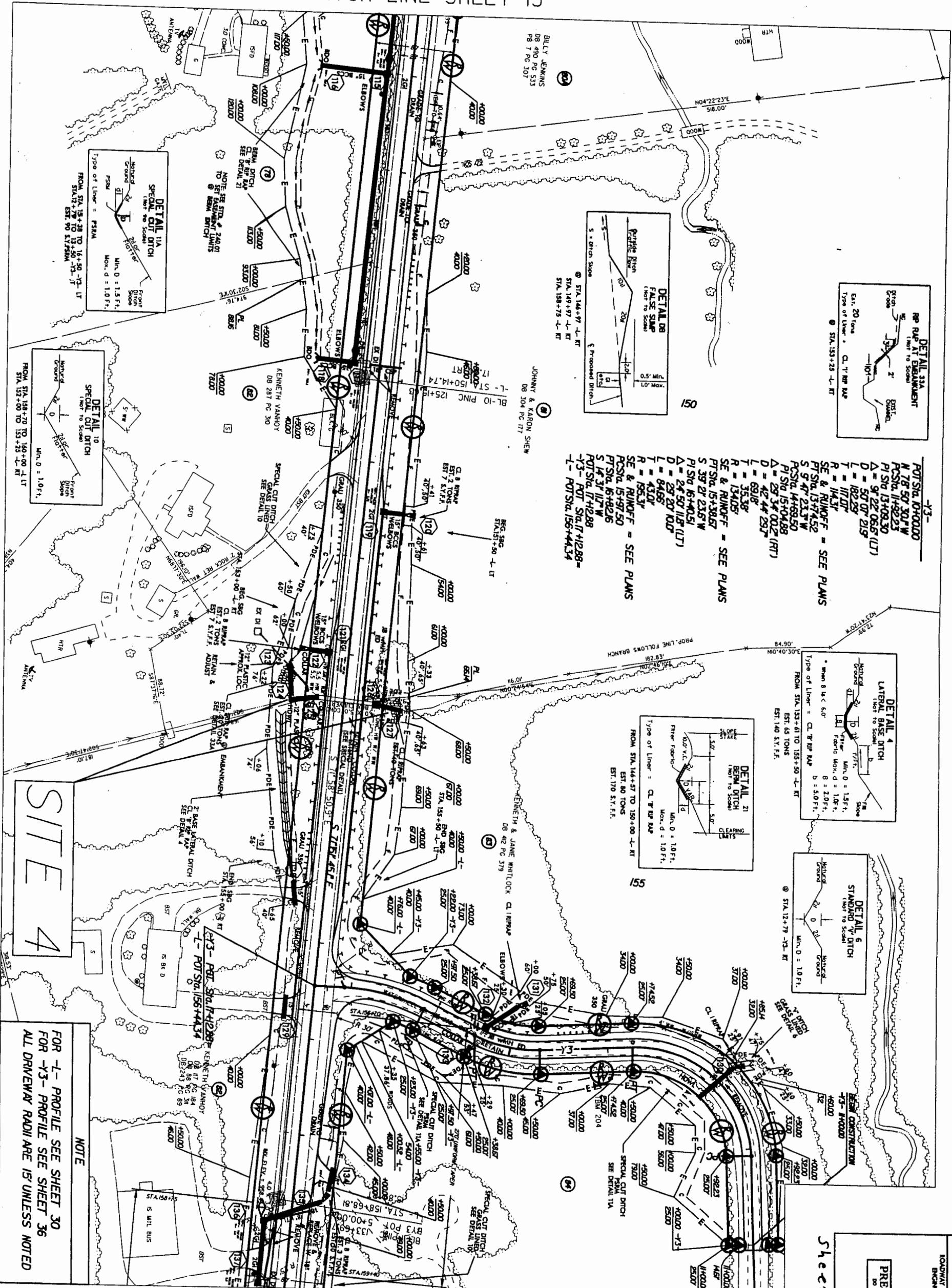
MATCH LINE SHEET 14

2/24/04 ADDED R/W MON TO -Y3- ON PT'S PC'S

REVISIONS

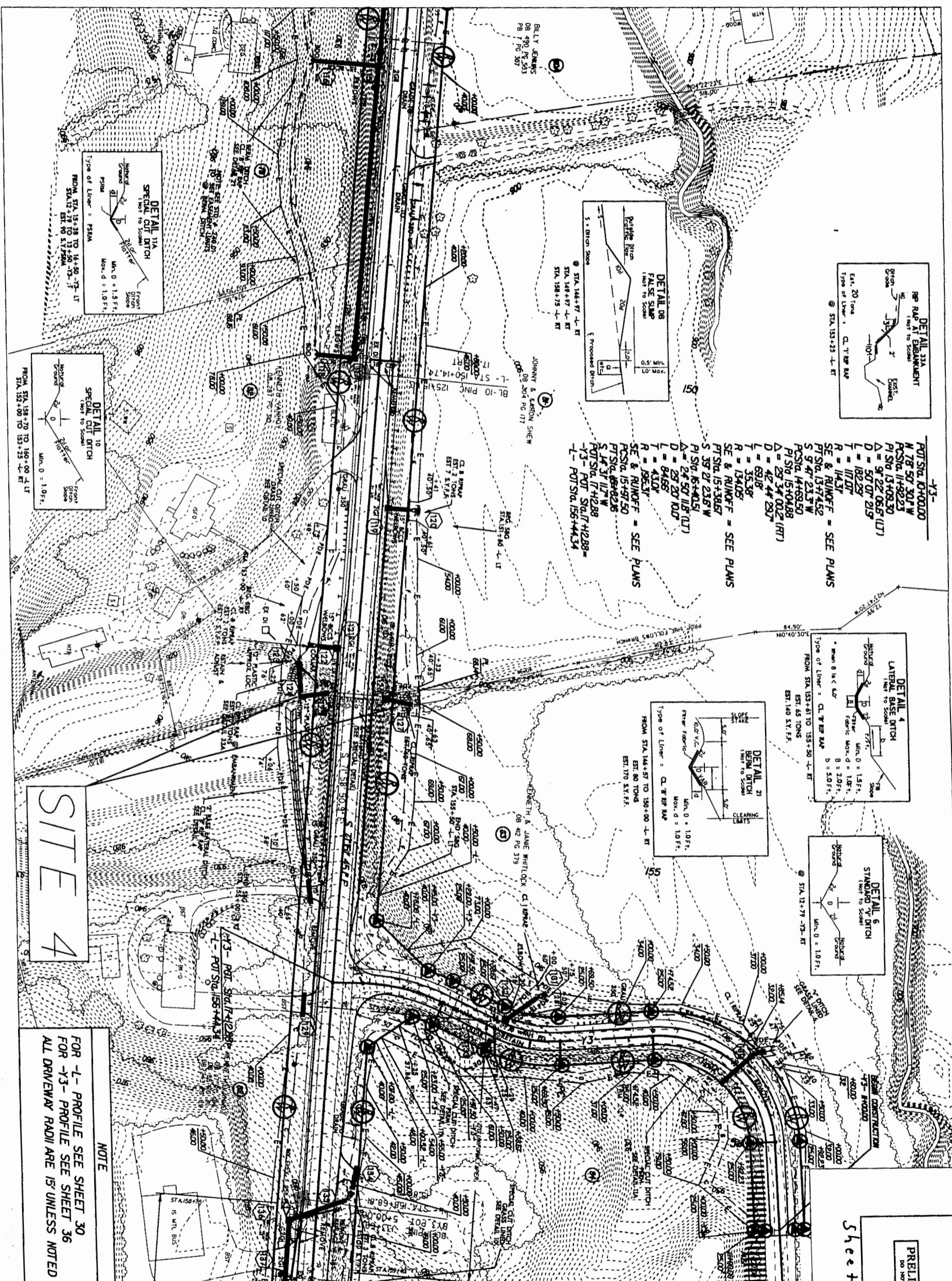
6/17

MATCH LINE SHEET 13



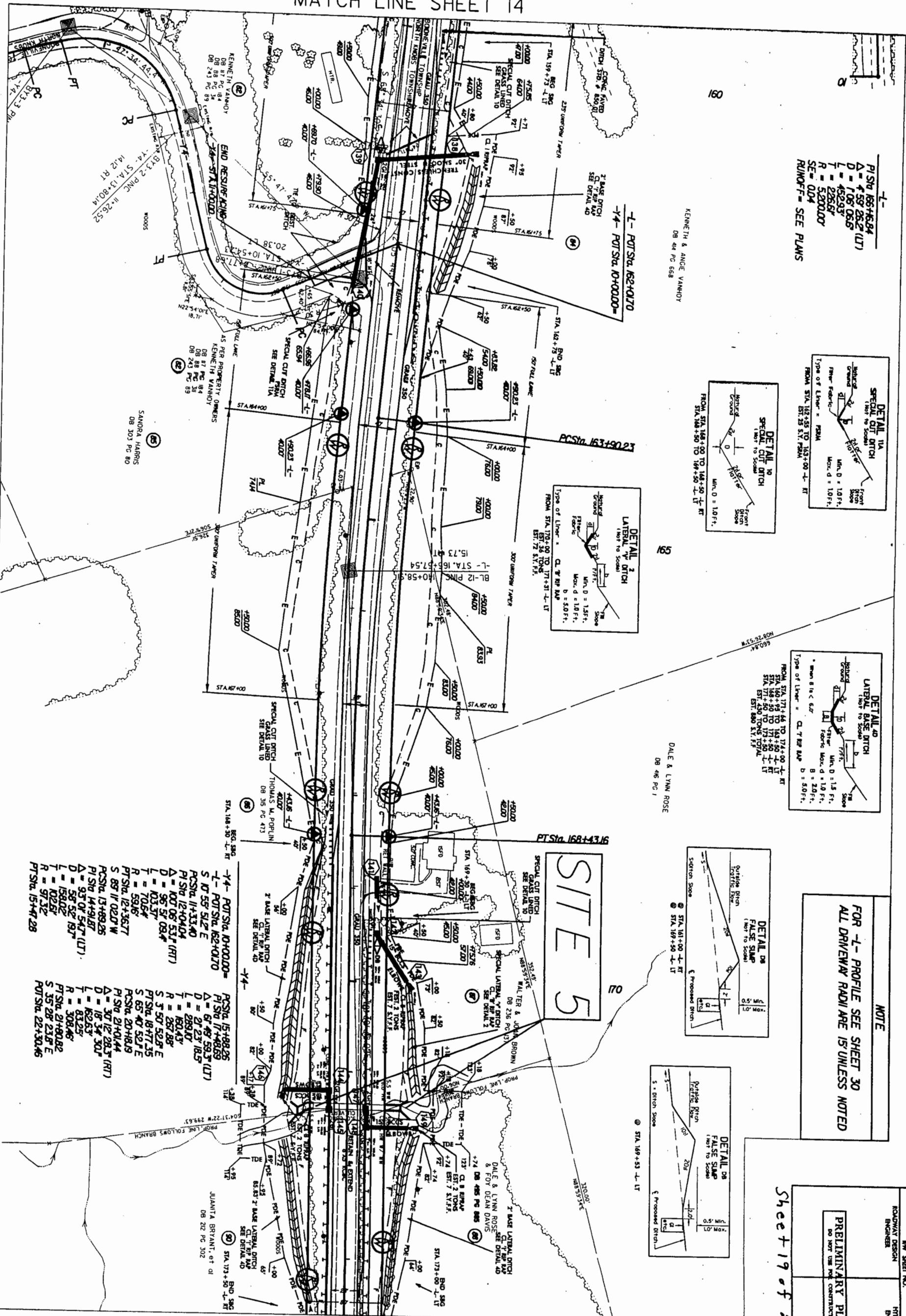
MATCH LINE SHEET 15

MATCH LINE SHEET 13

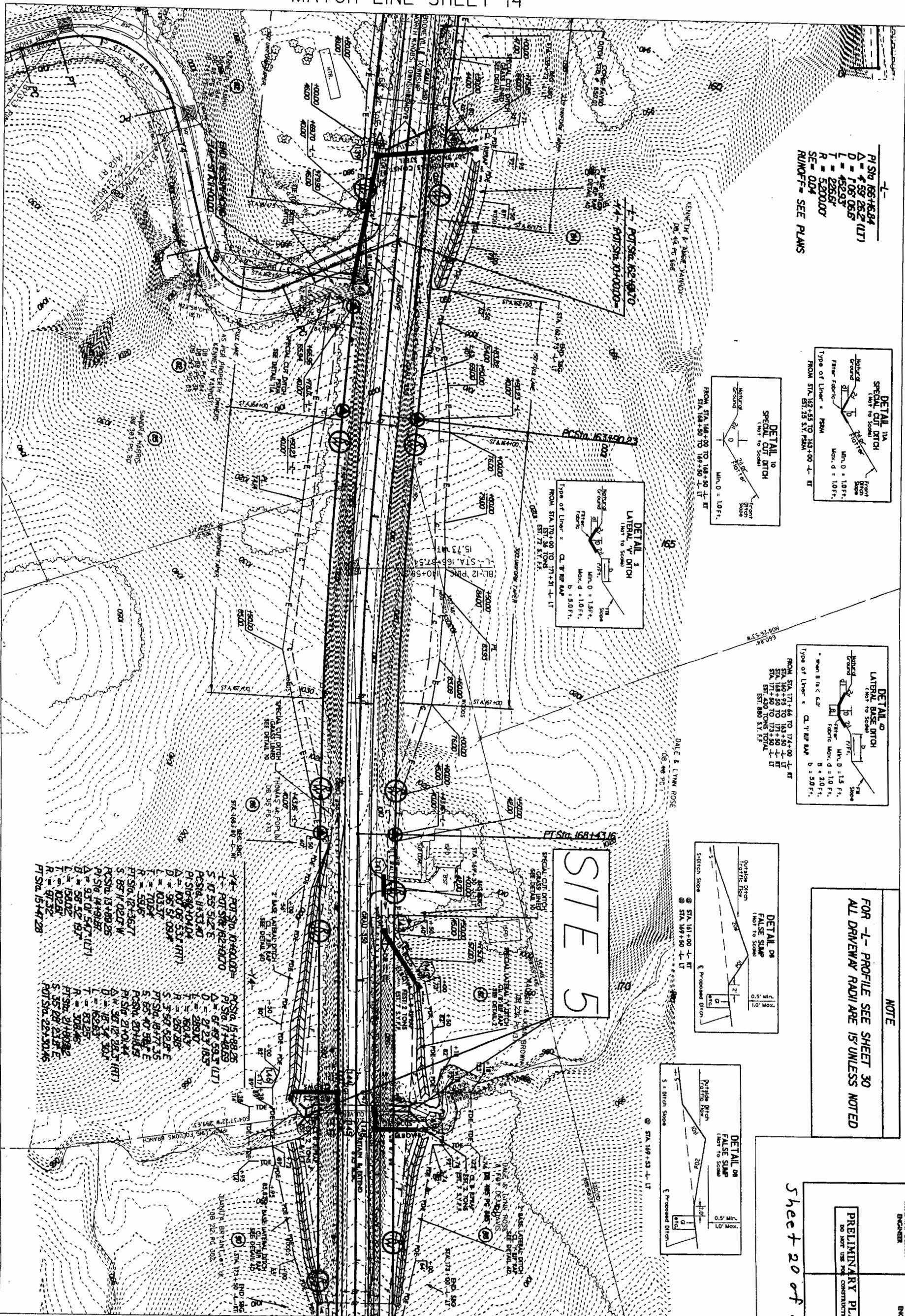


MATCH LINE SHEET 15

REVISIONS



MATCH LINE SHEET 14

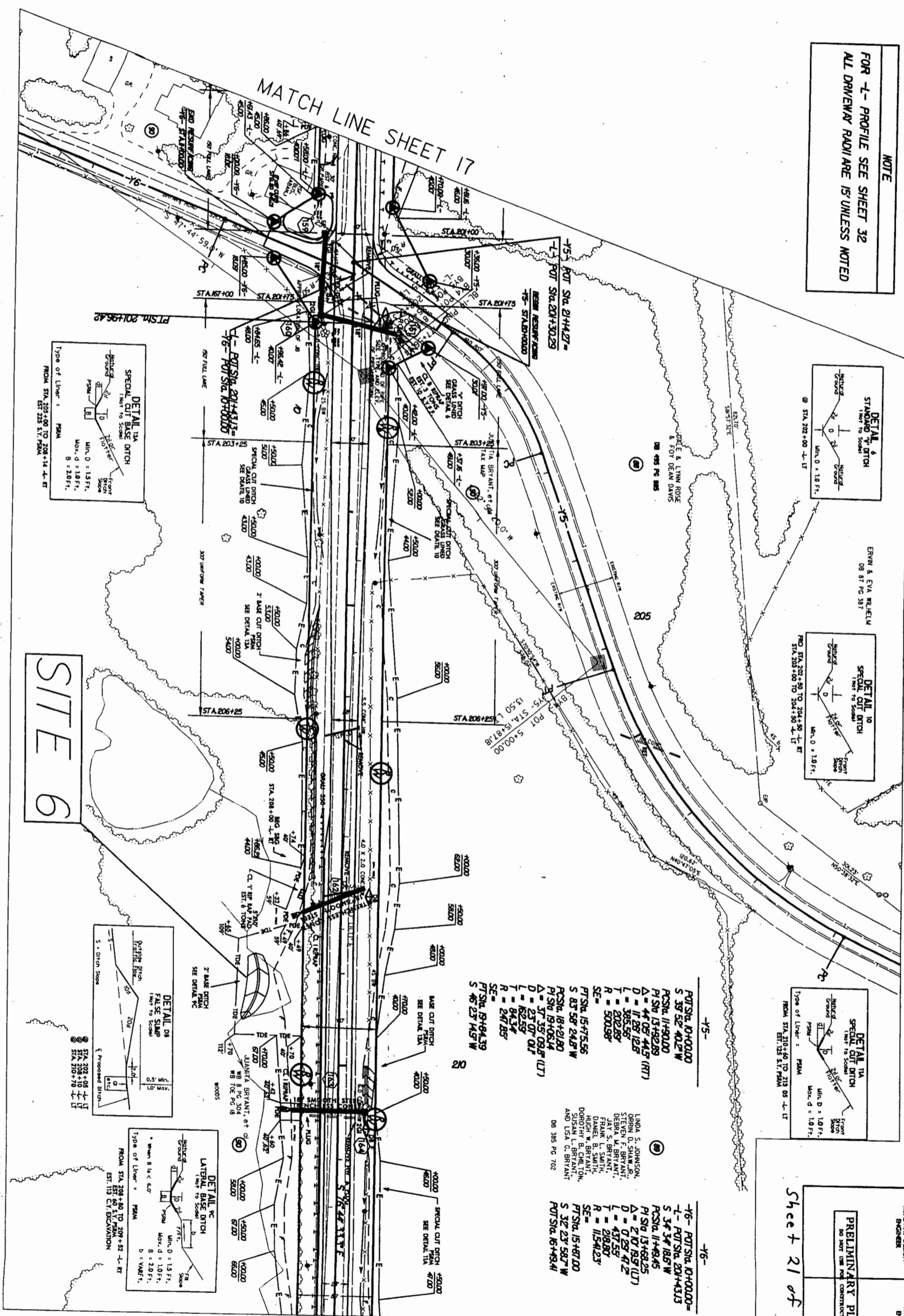


MATCH LINE SHEET 16

REVISIONS

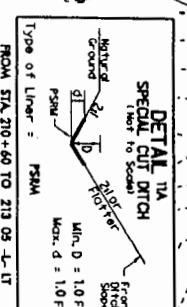
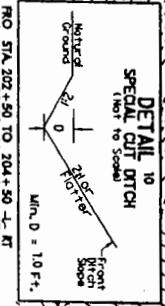
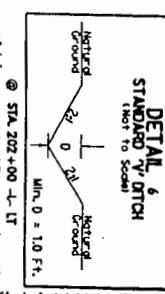
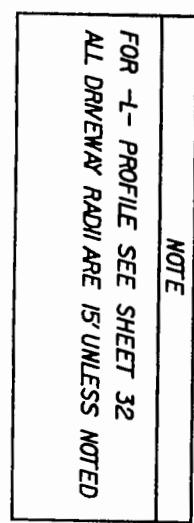
FOR -L- PROFILE SEE SHEET 32
ALL DRIVEWAY RADII ARE 15' UNLESS NOTED

310

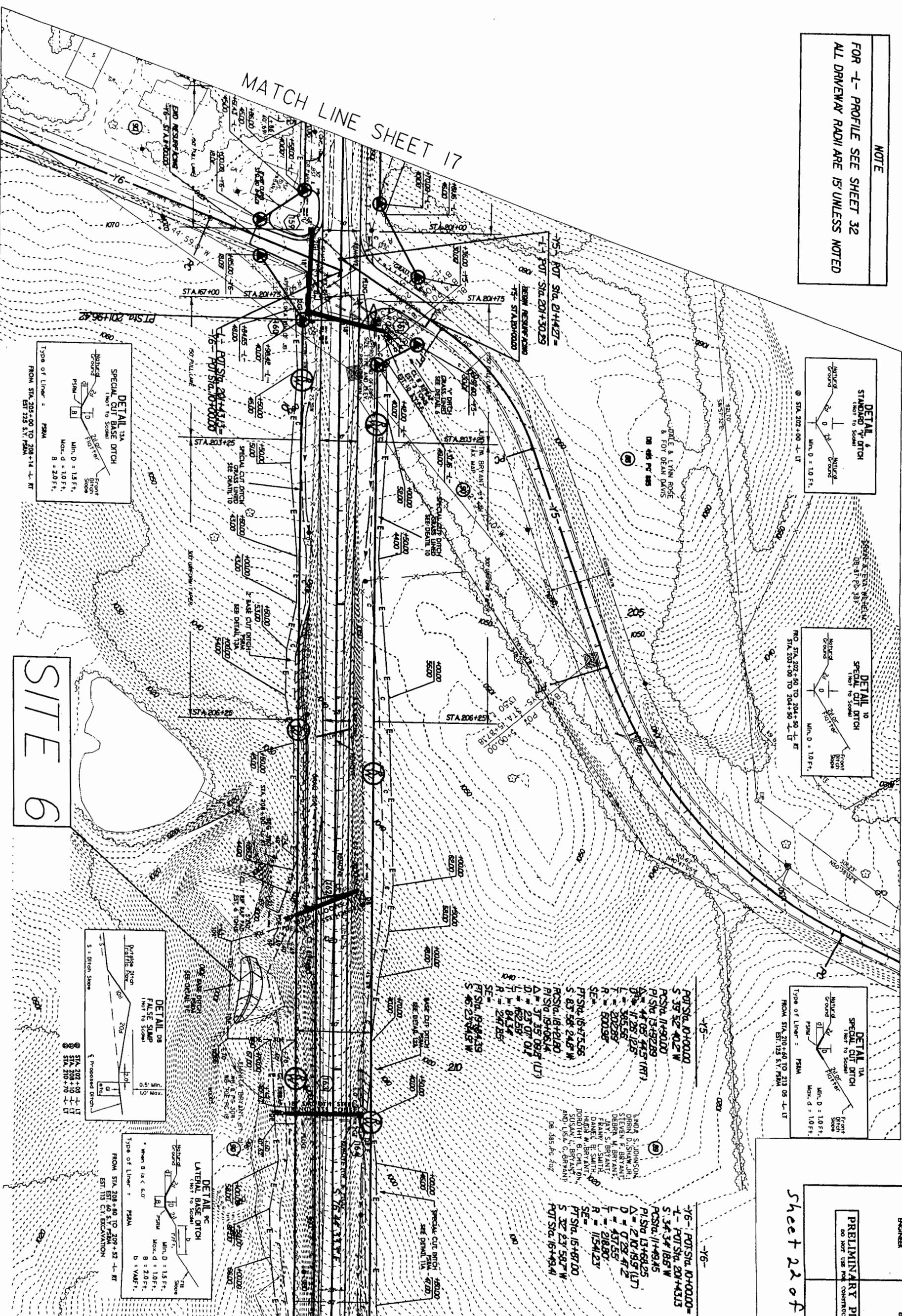


REVISIONS

FOR -L- PROFILE SEE SHEET 32
ALL DRIVEWAY RADII ARE 15' UNLESS NOTED



Sheet 22 of 28



MATCH LINE SHEET 19

6/22/04 ADDED 20' GRAVEL DRIVEWAY AND MODIFIED GUARDRAIL AT -L- STA.224+40 RT

09-DEC-2004 15:24
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crashbox.dwg

8/17.

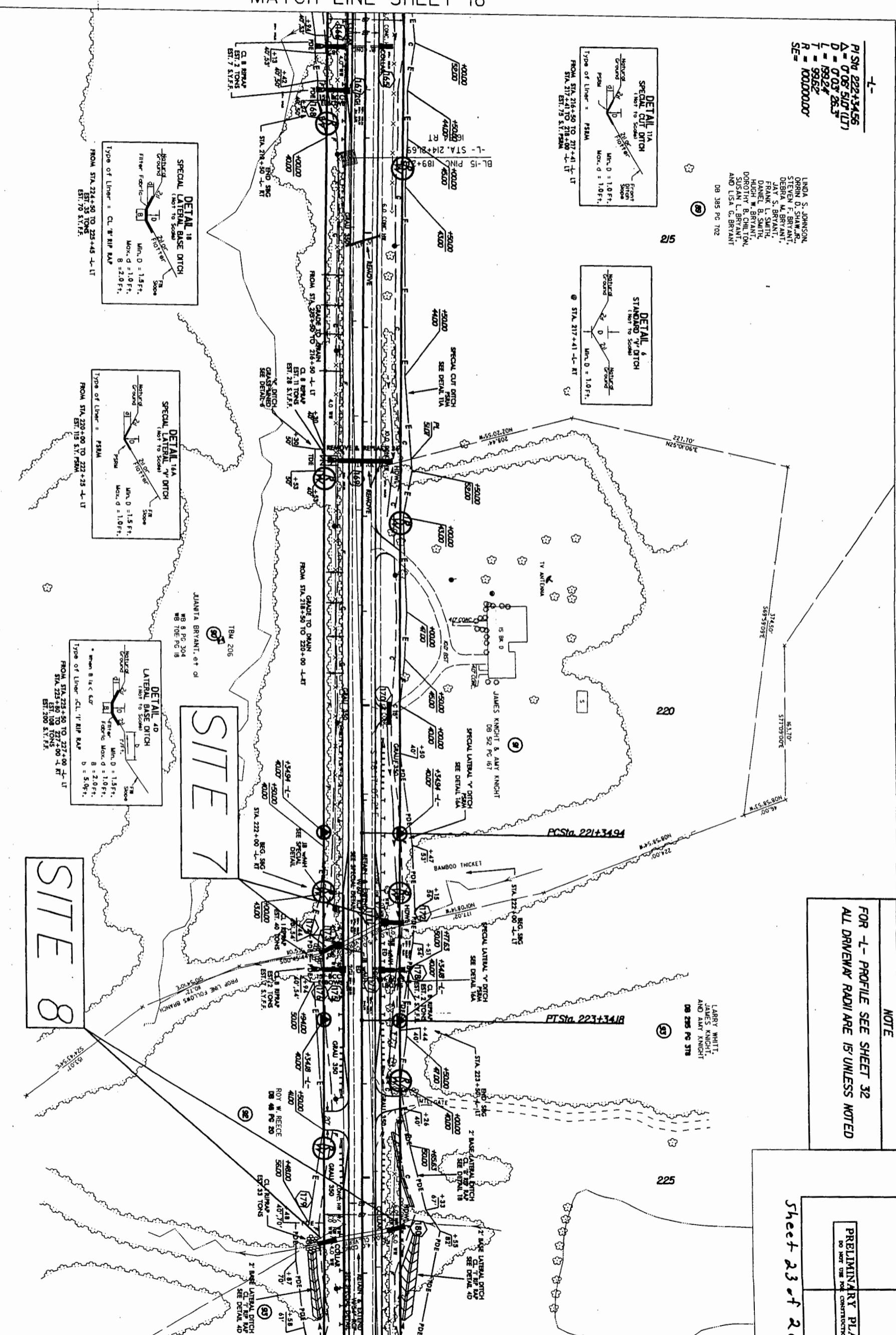
REVISIONS

-L-
PI Sta. 222+34.56
Δ = 0° 06' 50" (LT)
D = 0' 03" 26.3"
L = 1892'
T = 9862'
R = 10000000'

LINDA S. JOHNSON,
ORRIN D. SHAW, JR.,
STEVEN F. BRYANT,
DEBRA M. BRYANT,
JAY S. BRYANT,
FRANK L. SMITH,
DANIEL B. SMITH,
HUGH W. BRYANT,
DOROTHY B. CHILTON,
SUSAN L. BRYANT,
AND LISA G. BRYANT

DB 305 PG 702

MATCH LINE SHEET 18



MATCH LINE SHEET 20

REVISIONS
6/22/04 ADDED 20' GRAVEL DRIVEWAY AND MODIFIED GUARDRAIL AT -L- STA.224+40 RT

MATCH LINE SHEET 18

-L-
 PI Sub 222+34.56
 A = 078 510 (L)
 D = 005 26.3
 L = 1822'
 T = 982'
 R = 0000000
 SE-

LINDA S. JOHNSON,
 ORRIN D. SHAW JR.,
 STEVEN F. BRYANT,
 DEBRA M. BRYANT,
 JAY S. BRYANT,
 FRANK L. SMITH,
 DANIEL B. SMITH,
 HUGH W. BRYANT,
 DOROTHY B. CHILTON,
 SUSAN L. G. BRYANT,
 AND LISA L. G. BRYANT

DB 305 PC 702

DETAIL 11A
 SPECIAL CUT DITCH
 (No. to Scale)
 Min. D = 1.0 FT.
 Min. d = 1.0 FT.
 Type of liner = PSBM

DETAIL 6
 STANDARD V DITCH
 (No. to Scale)
 Min. D = 1.0 FT.

DETAIL 18
 SPECIAL LATENT BASE DITCH
 (No. to Scale)
 Min. D = 1.5 FT.
 Min. d = 1.0 FT.
 Filter Fabric: B
 Type of liner = CL & RIP RAP

DETAIL 1A
 SPECIAL LATENT V DITCH
 (No. to Scale)
 Min. D = 1.5 FT.
 Min. d = 1.0 FT.
 Type of liner = PSBM

DETAIL 4D
 LATENT BASE DITCH
 (No. to Scale)
 Min. D = 1.5 FT.
 Min. d = 1.0 FT.
 Filter Fabric: B
 Type of liner = CL & RIP RAP

SITE 8

NOTE
FOR -L- PROFILE SEE SHEET 32
ALL DRIVEWAY RADII ARE 15' UNLESS NOTED

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

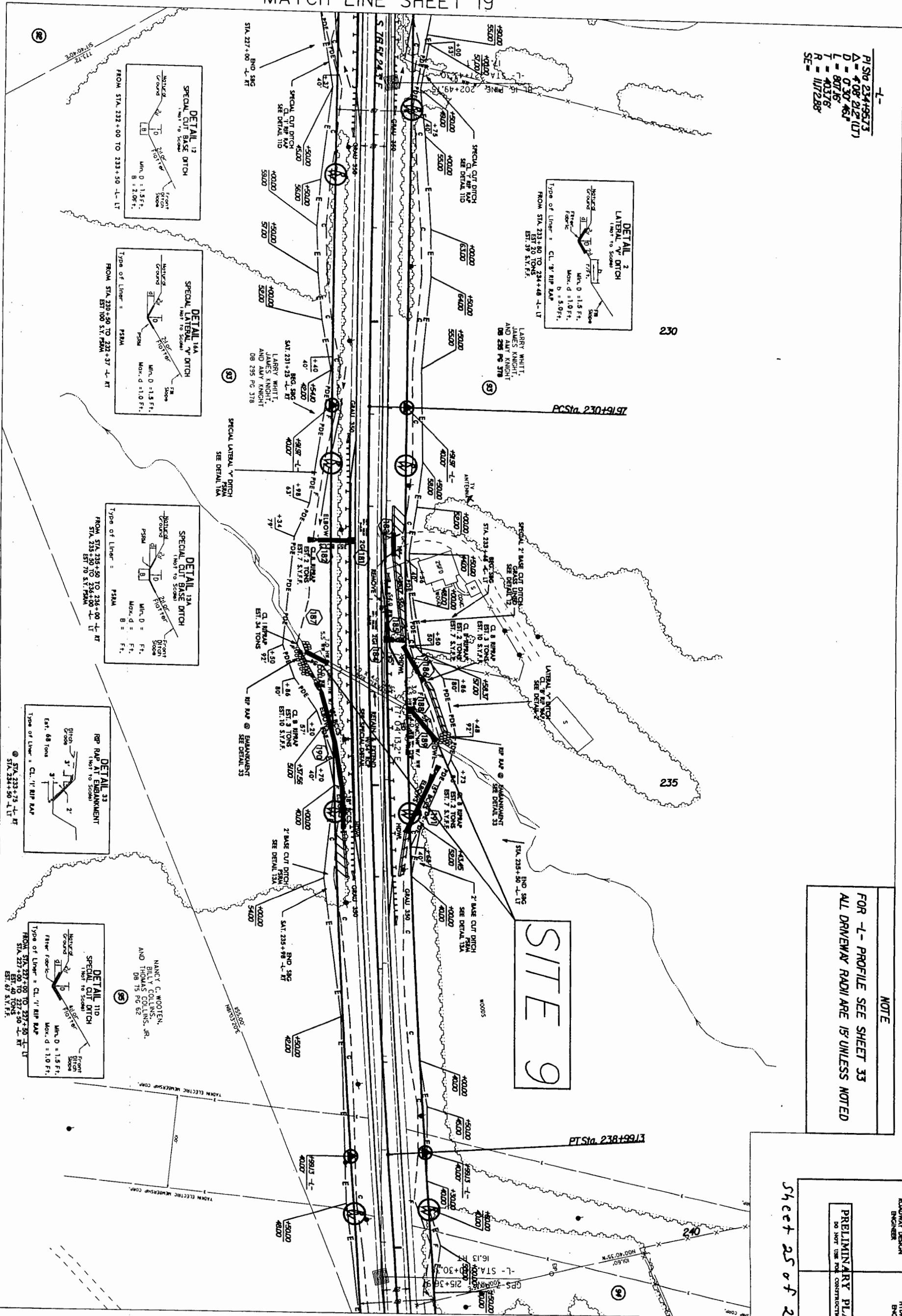
Sheet 24 of 28

PROJECT REFERENCE NO.	19
REV SHEET NO.	R-345
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE SHEET 20

PI Sta 234+99.73
 Δ = +0.8' 21.2' (LT)
 D = 0' 30' 46'
 L = 80' 76'
 T = 40378'
 R = 11728'
 SE =

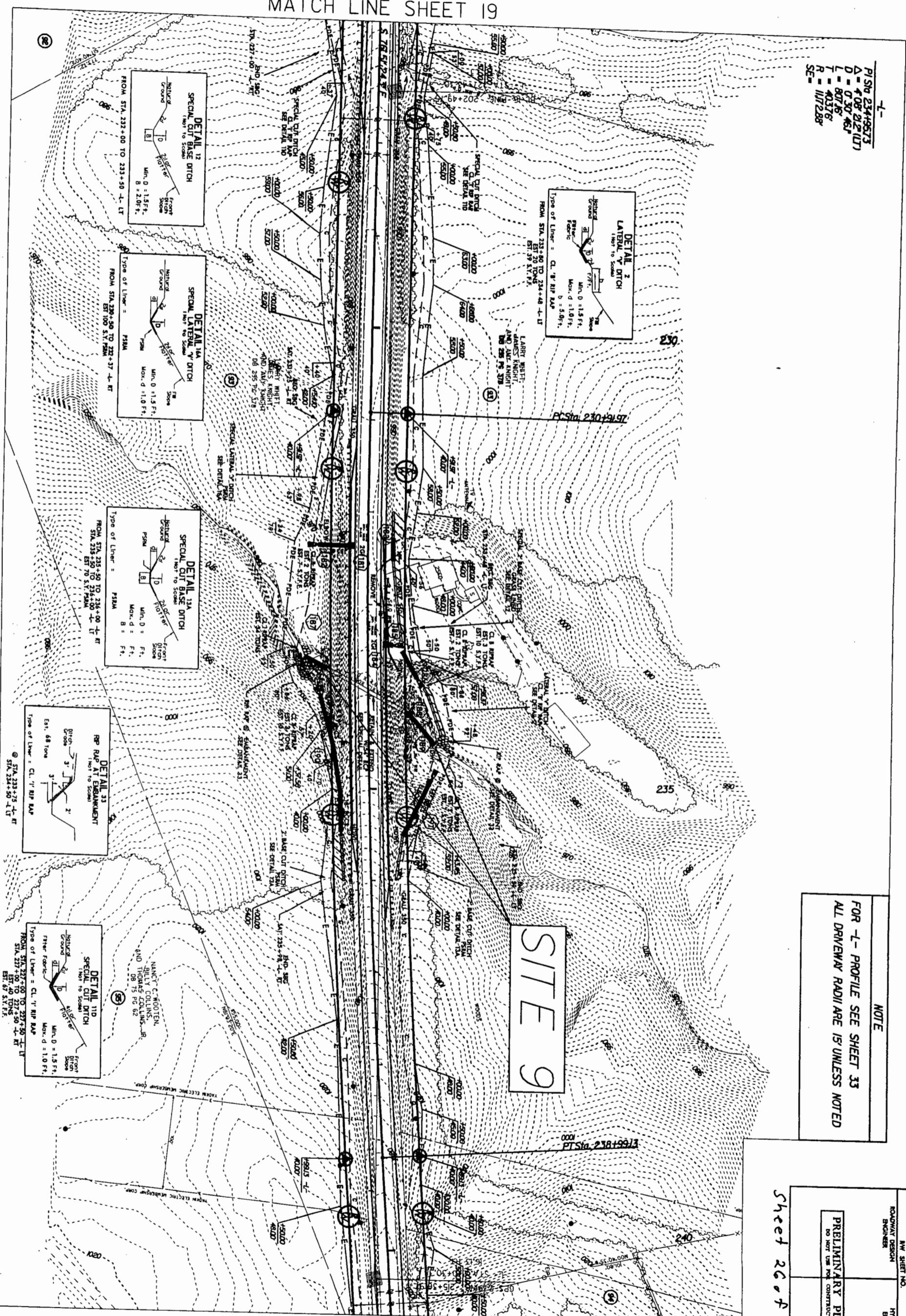
MATCH LINE SHEET 19



REVISIONS

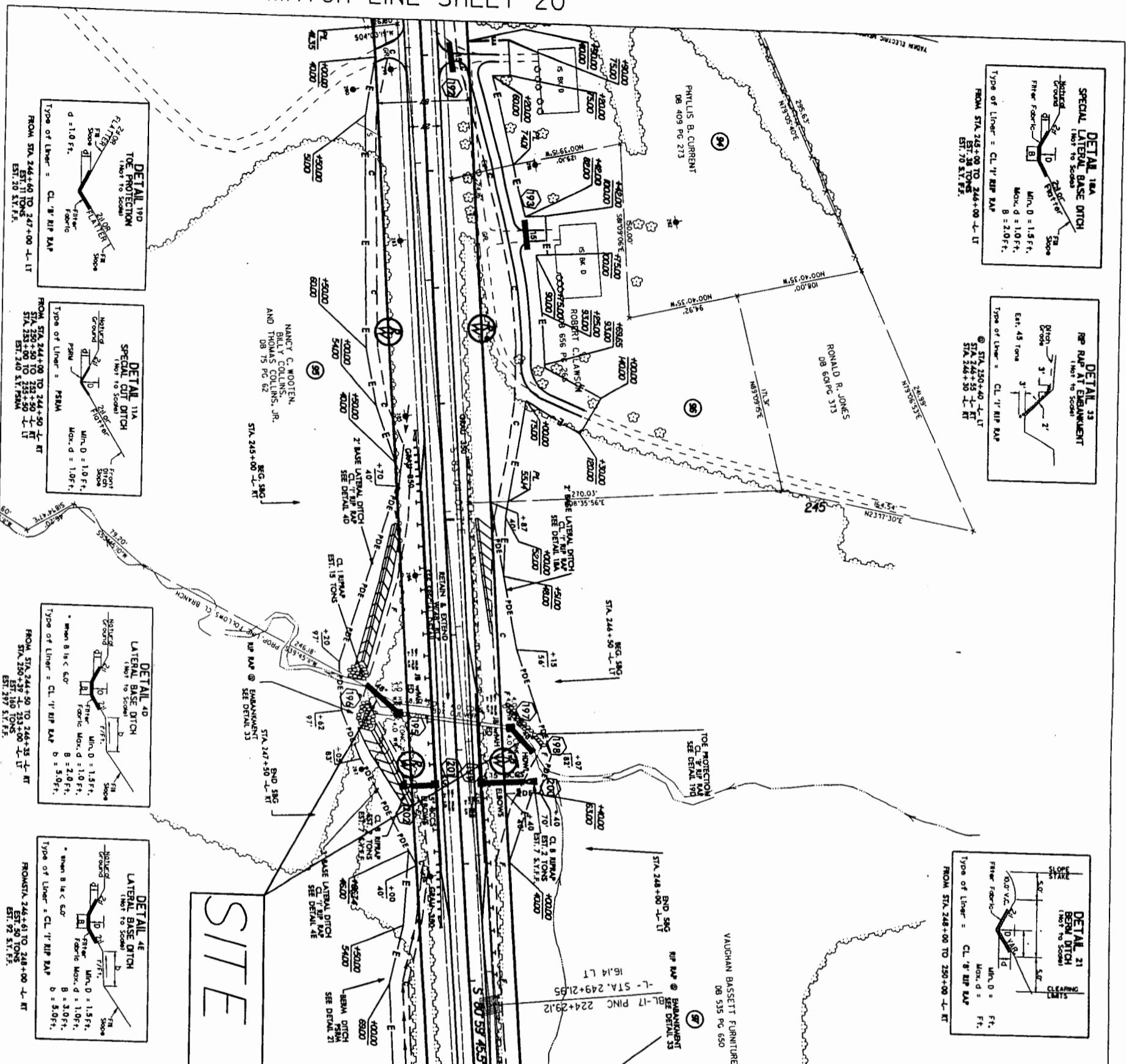
-
 PI Sta 234+9573
 A = 40822' (UT)
 D = 030°46'
 L = 8076'
 T = 40376'
 R = 117228'
 SE =

MATCH LINE SHEET 19



REVISIONS

MATCH LINE SHEET 20



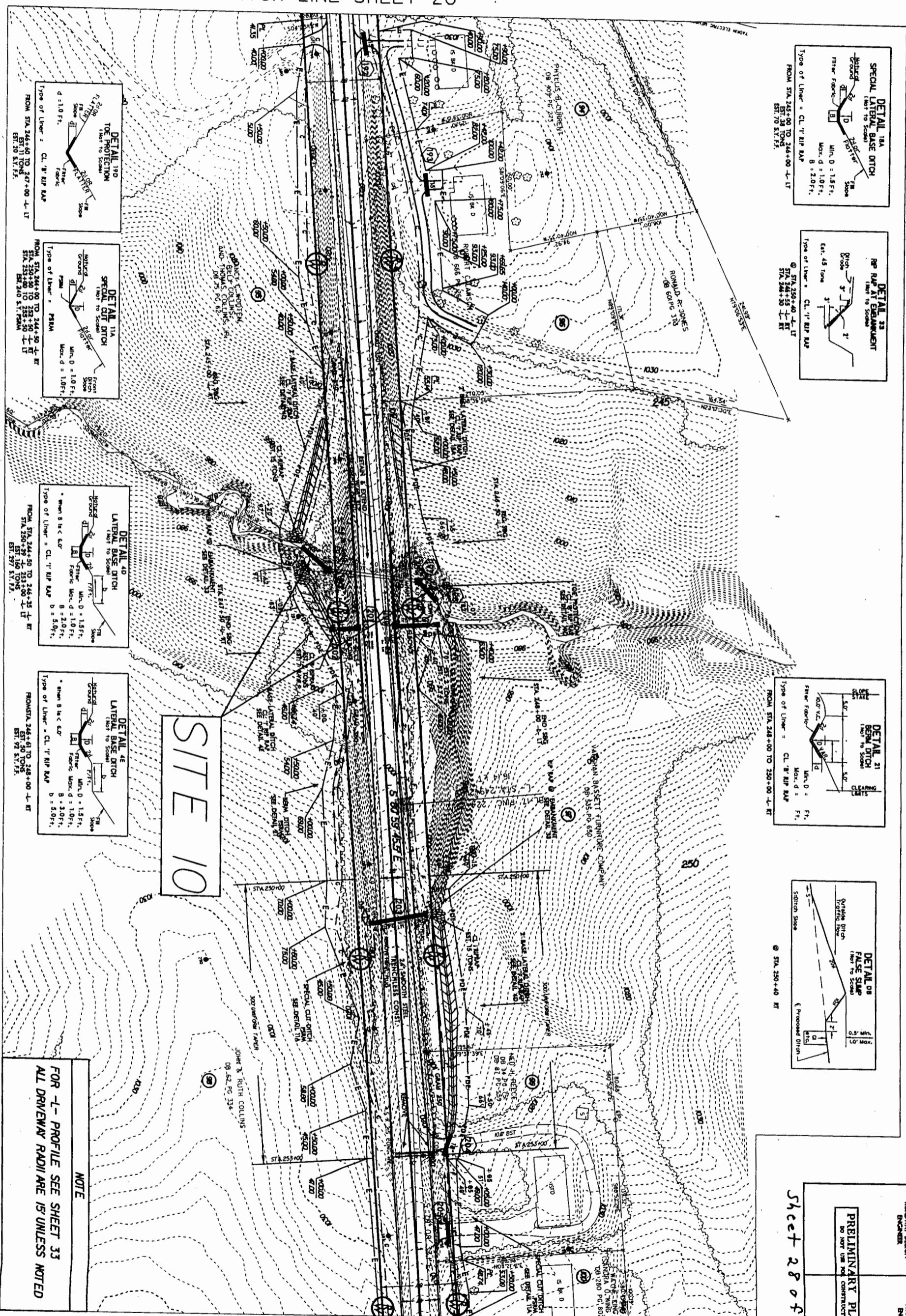
PROJECT REFERENCE NO. R-3415	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
RW SHEET NO.		
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION		
Sheet 27 of 28		

MATCH LINE SHEET 22

REVISIONS

09-DEC-2004 15:28
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crashaw AT

MATCH LINE SHEET 20



Sheet 280 ft 28
Preliminary Plans
No Not Use Not Construction
Roadway Design
Hydraulics
Engineer